PART III

NOTES AND ABSTRACTS

NOTES

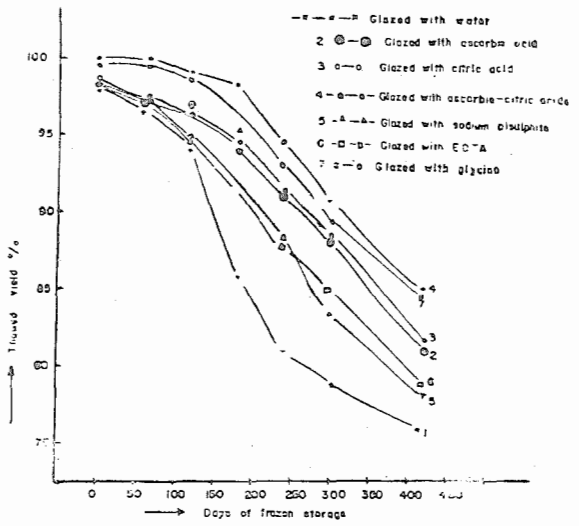
TECHNOLOGICAL ASPECTS OF PRESERVATION AND PROCESSING OF EDIBLE SHELL FISHES

IV. COMPARATIVE EFFICIENCY OF DIFFERENT GLAZES IN THE PRESERVATION OF FROZEN CRAB MEAT

The adverse changes in water glazed frozen crab meat during cold storage has been presented earlier (C. George. 1973). During frozen storage, the organoleptic qualities of the material undergo considerable changes, the major being discolouration, formation of unpleasant odours and hardening of texture. Although water is used generally as glaze of commercial choice because of its cheapness and ease of availability, glazing by harmless chemical solutions have been reported to be distinctly advantageous in prolonging storage life of fish (Pawar and Magar 1966) and shell fish (Strasser and King 1971). The present work was undertaken to enlighten upon the comparative efficiency of different glazes in improving the quality of frozen crab meat (*Scylla Serrata*).

Crab meat required for this study was collected from live crabs. The material handled in a hygienic way was quick frozen (-40°C) with different glazes like water, an 1% solution of ascorbic acid, citric acid, ascorbic-citric acids (1:4), Sodium bi sulphite, disodium salt of ethylene diamine tetra acetic acid (EDTA) and Glycine. They were wrapped in polyethylene paper and stored at -23°C. Frozen samples were drawn at intervals, thawed at 4°C and analysed for thawed yield in addition to the subjective tests. The organoleptic quality of the material was judged by an expert taste panel.

Fig. 1 Thawed Yield



The thawed yield does not show appreciable difference among samples initially but on prolonged storage marked changes were found to occur Fig. (1). Ascorbic-citric acid mixture and glycine glazes are effective for reducing the drip loss during cold storage.

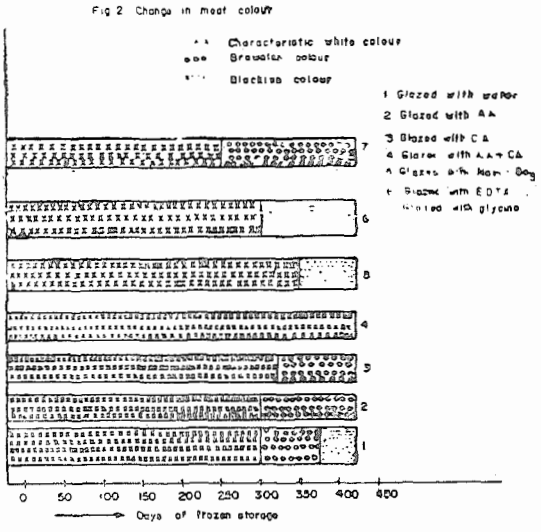


Fig. 2 depicts the change in meat colour; only in ascorbic-citric acids glazed sample, the characteristic colour is retained upto 420 days, in others brown discolouration and in some samples blackening developed by this time.

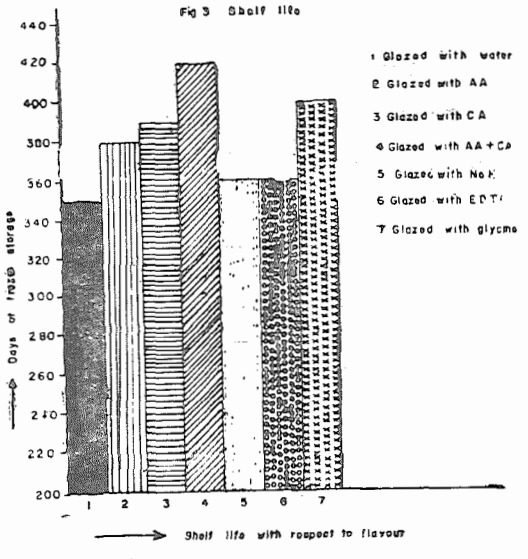


Fig. 3 gives an account of the shelf-life with respect to flavour. Maximum shelf-life is obtained in the case of ascorbic citric acids glazed samples and the next is glycine glazed.

Foregoing results give clear indications that of all the glazes studied ascorbic citric acid mixture is the best for extending shelf-life, preventing discolouration and minimising drip loss.

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